

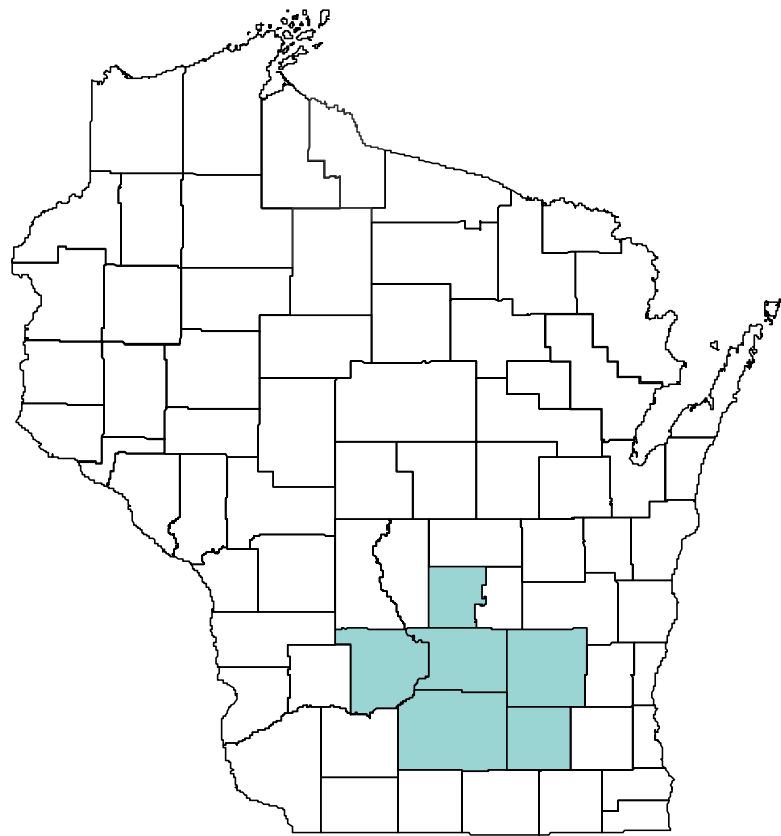
# Workforce Development Area Profile

## South Central Wisconsin

Columbia, Dane, Dodge, Jefferson,  
Marquette, and Sauk Counties.

The labor market is a constant ebb and flow of supply and demand. Too little demand for workers creates too much supply and unemployment increases. But too little supply of workers means job vacancies and lack of employment growth.

Every Workforce Development Area in the state should anticipate a tight labor supply condition by the end of the next decade. Planners in each area must understand the unique set of employment characteristics in their region to development a strategy to meet a future where demand will exceed supply.



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State of Wisconsin  
Department of Workforce Development  
Office of Economic Advisors  
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## Industry employment and projections

This profile seeks to help employers, economic developers and job seekers make more informed decisions. To that end, it surveys employment projections (by industry and by occupation), current employment and wages (by industry), top occupations within the top industries, and income data.

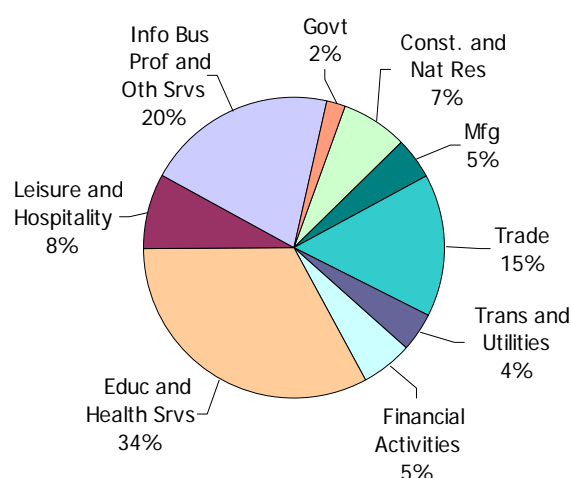
The Office of Economic Advisors projects that total employment in South Central Wisconsin will grow by nearly 60,000 jobs or 14.5 percent between 2002 and 2012. (See table below.) This exceeds Wisconsin's projected job growth rate and puts South Central Wisconsin near the upper end of the job-growth pack among Wisconsin Workforce Development areas. (See page 2, upper right bar graph.)

Of the nearly 60,000 jobs that South Central Wisconsin will gain between 2002 and 2012, about 19,700 jobs, or roughly 34 percent, will be in education & health services. (See pie chart to right.) This reflects the largest numerical job growth and the fastest rate of job growth (23.5%) of any major industry group.

Hosting the flagship public university, a veteran's hospital and a research hospital, Dane County will account for a significant proportion of education & health services growth. In 2003, South Central Wisconsin's education & health services establishments

reported over 88,000 jobs and \$3.27 billion in wages. Over 67,000 (or 76 percent) of those jobs and nearly \$2.65 billion (or 80.9%) of those wages were reported by Dane County education & health services establishments. Dane County's colleges and universities increase its concentration of education services while its concentration of health services is similar to other South Central counties' concentrations.

**Distribution of Job Growth by Industry Sectors in South Central Wisconsin: 2002 - 2012**



**Industry Projections for South Central Workforce Development Area, 2002-2012**

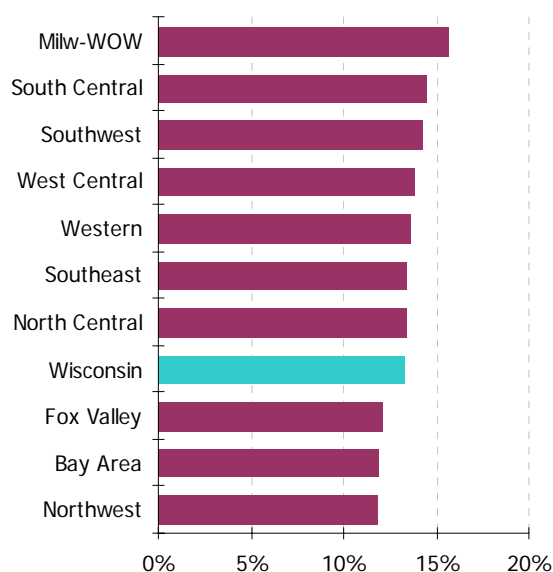
Industry Title	Employment		Ten-year change	
	2002 Estimate	2012 Projected	Numeric	Percent
Total Non-farm Employment	412,140	472,090	59,950	14.5%
Construction/Mining/Natural Resources	21,080	25,390	4,310	20.4%
Manufacturing	61,160	63,920	2,760	4.5%
Printing and Related Support Activities	6,670	6,820	150	2.2%
Fabricated Metal Product Mfg	7,600	7,880	280	3.7%
Machinery Mfg	6,740	6,910	170	2.5%
Trade	61,330	70,390	9,060	14.8%
Food and Beverage Stores	8,140	8,700	560	6.9%
Transportation and Utilities (Including US Postal)	13,330	15,770	2,440	18.3%
Financial Activities	27,850	31,080	3,230	11.6%
Education and Health Services (Incl'd state & local govt. ed. & hosp.)	83,940	103,650	19,710	23.5%
Ambulatory Health Care Services	13,490	18,860	5,370	39.8%
Hospitals (Including state & local govt.)	14,550	17,750	3,200	22.0%
Leisure and Hospitality	38,310	43,340	5,030	13.1%
Information/Prof Services/Other Services	67,170	79,370	12,200	18.2%
Government (Excluding USPS, state & local govt. ed. and hosp.)	37,980	39,190	1,210	3.2%

Source: WI DWD, Office of Economic Advisors, September 2004

The education & health services sector faces special demographic challenges relating to demand and funding. Wisconsin Department of Administration population projections suggest that the number of Wisconsin residents 60 or more years old will increase by nearly 734,500 or 77 percent between 2005 and 2030. Demand for health care services will probably grow faster than demand for educational services. South Central Wisconsin's education and health care employers rely on funding from property taxes, Badger Care/Medicare, and other government-related sources that will be strained. As demand for health services grows faster than demand for educational services, the two will compete for ever-scarcer public funding.

The table on page 1 shows that after education & health services, the information, professional services and other services sector will provide the next-largest number of jobs in 2012 and the next-largest number of jobs added between 2002 and 2012. South Central Wisconsin in general and Dane County in particular offer large numbers of workers with the education backgrounds that many information and professional services employers seek. As the number of retirees explodes, demand for "other services" is likely to accelerate also. This would include home maintenance and repair; civic, religious and social organizations; and personal services.

Changes in Employment for Workforce Development Areas in Wisconsin: 2002 - 2012

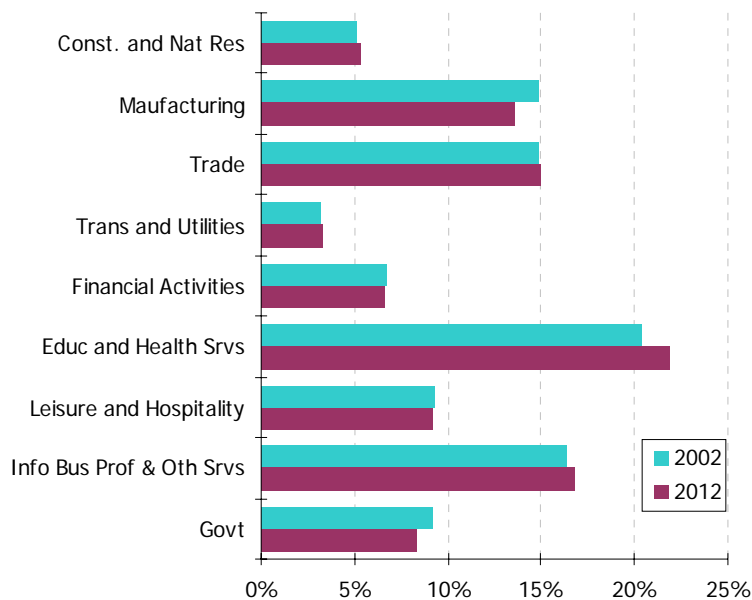


Source: WI DWD, Office of Economic Advisors, Sept. 2004

Of the nearly 60,000 jobs that South Central Wisconsin will gain between 2002 and 2012, over 9,000 (or 15 percent) will be in wholesale and retail trade and over 5,000 (or 8 percent) will be in leisure & hospitality. Over the last decade national retailers, particularly "big box" stores, have enjoyed stronger growth in South Central Wisconsin than locally owned retailers. In leisure & hospitality, restaurant chains and hotel chains seem to be proliferating more prodigiously than traditional small businesses. Locally owned business are more likely to keep high-level professional and technical functions closer to home. More often than smaller counterparts, national chains take management models, information technology and marketing materials from elsewhere and superimpose them on their local branches. Although consumers seem satisfied, this approach can boost the number of low wage jobs far faster than the number of high wage jobs.

The graph to the left shows that manufacturing is the only sector that will account for a significantly smaller share of total employment in 2012 than it did in 2002. It will still provide roughly 63,900 (or 14 percent) of the region's 472,000 total jobs. Manufacturing may struggle to replace its most experienced technical workers, especially if talented high school students choose 4-year schools without giving technical schools sufficient consideration.

Distribution of Jobs by Industry Sectors in South Central Wisconsin: 2002 - 2012



Source: WI DWD, Office of Economic Advisors, September 2004

## Employment and wages

South Central Wisconsin's all-industries wage (\$34,208) was roughly 2 percent greater than the statewide all-industries average wage (\$33,423). With 69 percent of the region's jobs and 75 percent of the region's wages, Dane County was the only county with an all-industries average wage (\$36,876) above the statewide average.

Despite losing 1,729 jobs between 2002 and 2003, the manufacturing sector provided the third-largest number of jobs and the second-largest payroll in the region. Total manufacturing wages paid increased in 2003 despite job losses. Dodge, Marquette and Jefferson counties rely more heavily on manufacturing than the rest of South Central Wisconsin, so manufacturing slowdowns hit those counties harder. Sauk and Columbia counties are closer to ranges typical in Wisconsin, while Dane County's manufacturing concentration is quite a bit lower.

As readers expect, public administration is somewhat concentrated in Dane County, where the state capital sits. Dane's average public administration wage (\$44,015) is higher than the state's (\$35,689) due to the senior-level jobs in Madison. Due in part to vacancies left unfilled, Dane

### 2003 Average Annual Wage by Industry Division in South Central WDA

	Average Annual Wage		Percent of	1-year
	Wisconsin	South Central	Wisconsin	% change
All Industries	\$ 33,423	\$34,208	102%	3.8%
Natural resources	\$ 25,723	\$29,108	113%	1.4%
Construction	\$ 40,228	\$43,079	107%	1.7%
Manufacturing	\$ 42,013	\$39,983	95%	4.2%
Trade, Transportation, Utilities	\$ 28,896	\$27,688	96%	1.9%
Information	\$ 39,175	Not avail.	Not avail.	Not avail.
Financial activities	\$ 42,946	\$43,137	100%	5.9%
Professional & Business Services	\$ 38,076	\$39,813	105%	4.0%
Education & Health	\$ 35,045	\$37,063	106%	4.9%
Leisure & Hospitality	\$ 12,002	\$11,786	98%	3.1%
Other services	\$ 19,710	\$25,379	129%	3.0%
Public Administration	\$ 35,689	\$40,920	115%	5.7%

Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

County's public administration declined by 229 in 2003. Reflecting a long-term shift, Dodge was the only South Central county to see increases in both public administration employment (by 80 jobs or 3.1 percent) and public administration wages (by \$7.2 million or 8.9 percent) from 2002 to 2003. Marquette County's average annual public administration wage rose \$2,306 or 10.9 percent in 2003. Primarily driven by growing need for prison staff, this trend could face demographic and budgetary challenges discussed on page 4.

### 2003 Employment and Wage Distribution by Industry in South Central WDA

	Employment		Total Payroll	
	Annual average	1-year change		
Natural Resources	3,359	-163	\$ 97,772,244	
Construction	21,684	462	\$ 934,123,460	
Manufacturing	59,423	-1,729	\$ 2,375,902,076	
Trade, Transportation, Utilities	76,046	346	\$ 2,105,539,709	
Information	Suppressed	Not avail.	Suppressed	
Financial Activities	29,017	927	\$ 1,251,706,630	
Professional & Business Services	37,825	544	\$ 1,505,928,686	
Education & Health	88,328	1,184	\$ 3,273,696,789	
Leisure & Hospitality	40,531	1,318	\$ 477,712,482	
Other services	12,573	-28	\$ 319,094,098	
Public Administration	31,020	-167	\$ 1,269,352,184	
Not assigned	Suppressed	Not Avail.	Suppressed	
All Industries	408,358	2,694	\$ 13,969,000,431	

Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

## Significant industries

### Top Five Industries in South Central WDA

Industry	March-2004		Numeric Employment Change	
	Establishments	Employees	2003 - 2004	1999 - 2004
Educational Services	192	41,671	9	3,661
Food Services and Drinking Places	1,226	27,213	1,359	3,887
Professional, Scientific & Technical Services	1,604	17,101	-461	1,925
Hospitals	16	17,015	522	2,779
Insurance Carriers & Related Activities	443	15,515	851	2,973

Source: DWD, Bureau of Workforce Information, Quarterly Census of Employment and Wages

The table above lists the five industry sub-sectors with the most jobs in South Central Wisconsin as of March 2004. These sub-sectors fit within major sectors discussed on pages 1 and 2. Between 1999 and 2004, professional, technical and technical services added the smallest number of jobs and food services and drinking places added the greatest number.

Together, these five industries provided over one-fourth of the jobs in South Central Wisconsin (see pie chart to right). The remainder of this page and the next two pages discuss each industry sub-sector individually and list prominent occupations in each sub-sector.

Share of jobs in top five industries in South Central WDA



### I. Education Services

In the form of research grants, property taxes and college loans repaid by graduates, education institutions rely on funding from people in prime tax-paying years. Department of Administration population projections suggest that South Central Wisconsin will have 19,841 more residents between the ages of 25 and 59 in 2030 than in 2005. Over the same time period, the region's school-aged population (residents 5 to 24 years old) will add 28,329 people and the region's 60-and-over population will add 111,315. The groups consuming most education and health services will grow faster than the group paying most taxes.

These trends may restrain wages and job security for education institutions' employees and increase the challenge of investing in the future workforce. The increasing complexity and importance of technology in the workplace and mounting global competition suggest that initial education investments, continuing education and retraining will become more important. As significant numbers of educators approach retirement, finding funding to recruit and retain top-shelf applicants will have a significant role in shaping the quality of the future workforce.

### Top 20 Occupations in Wisconsin in Education Services Ranked by number of jobs projected in 2012

- Elementary School Teachers, Except Special Education
- Secondary School Teachers, Except Special and Vocational Education
- Teacher Assistants
- Middle School Teachers, Except Special and Vocational Education
- Janitors and Cleaners, Except Maids and Housekeeping Cleaners
- Secretaries, Except Legal, Medical, and Executive
- Vocational Education Teachers, Postsecondary
- Education Administrators, Elementary and Secondary School
- Health Specialties Teachers, Postsecondary
- Special Ed. Teachers, Preschool, Kindergarten, and Elementary School
- Kindergarten Teachers, Except Special Education
- Educational, Vocational, and School Counselors
- Executive Secretaries and Administrative Assistants
- Cooks, Institution and Cafeteria
- Office Clerks, General
- Special Education Teachers, Secondary School
- Graduate Teaching Assistants
- Special Education Teachers, Middle School
- Business Teachers, Postsecondary
- Bookkeeping, Accounting, and Auditing Clerks

Source: WI DWD, Office of Economic Advisors, Sept. 2004



## II. Food Services and Drinking Places

In South Central Wisconsin, food service and drinking establishments provide 6.7 percent of the jobs. This sub-sector's average annual wage (\$10,570) is so far below the region's all-industries average wage (\$33,423) that it contributes just 2.1 percent of total payroll. Part time and seasonal schedules limit wage gains and allow workers to coordinate school, child care and other jobs.

Food service and drinking places account for a greater share of jobs in Sauk County than in any other South Central county. Sauk County also enjoyed a high average wage in that sub-sector (\$11,193). It accounts for 9.1 percent of Sauk County's jobs as opposed to a regional average of 6.7 percent of jobs. The concentration of eating and drinking places might drive up the sub-sector's average wage somewhat. Still, Sauk County's all-industries average wage (\$26,537) is the second-lowest in the region. Perhaps it is a sign of the county's struggle to generate more jobs in better-paying sectors. Available data does not definitively support or refute either interpretation.

## III. Professional, Scientific & Technical Services

Professional, scientific and technical service workers often find more job opportunities and greater compensation in cities than in rural areas. Also, a worker leaving an establishment dedicated to professional, scientific or technical services will find opportunities in and around Dane County that are attributable (in varying degrees) to the presence of the hub of state government, a flagship university and a strong finance and insurance industry in Madison. Several of the occupations listed in the table to the right draw on South Central Wisconsin's high levels of educational attainment and plentiful education and training opportunities. Perhaps as an indicator of more general future trends, this sub-sector offers more jobs and more advancement opportunity to people who have post-secondary education or training. People who struggle to finish high school seem likely to find fewer jobs and more limited advancement opportunities in this sub-sector's most prevalent occupations.

### Top 20 Occupations in Wisconsin in Food Services and Drinking Places Ranked by number of jobs projected in 2012

Waiters and Waitresses  
Combined Food Preparation and Serving Workers, Including Fast Food  
Bartenders  
Cooks, Restaurant  
Cooks, Fast Food  
First-Line Supervisors/Managers of Food Preparation and Serving Workers  
Dishwashers  
Food Preparation Workers  
Cooks, Short Order  
Dining Room and Cafeteria Attendants and Bartender Helpers  
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop  
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop  
Food Service Managers  
Chefs and Head Cooks  
Cashiers  
Janitors and Cleaners, Except Maids and Housekeeping Cleaners  
Driver/Sales Workers  
General and Operations Managers  
Truck Drivers, Light or Delivery Services  
Bookkeeping, Accounting, and Auditing Clerks

Source: WI DWD, Office of Economic Advisors, Sept. 2004

### Top 20 Occupations in Wisconsin in Professional, Scientific & Technical Services Ranked by number of jobs projected in 2012

Computer Systems Analysts  
Lawyers  
Accountants and Auditors  
Bookkeeping, Accounting, and Auditing Clerks  
Legal Secretaries  
Computer Software Engineers, Applications  
Office Clerks, General  
Executive Secretaries and Administrative Assistants  
Secretaries, Except Legal, Medical, and Executive  
Receptionists and Information Clerks  
Civil Engineers  
Computer Software Engineers, Systems Software  
Computer Programmers  
First-Line Supervisors/Managers of Office & Administrative Support Workers  
Paralegals and Legal Assistants  
General and Operations Managers  
Computer Support Specialists  
Architects, Except Landscape and Naval  
Management Analysts  
Customer Service Representatives

Source: WI DWD, Office of Economic Advisors, Sept. 2004

## IV. Hospitals

The occupation lists on pages 4-6 suggest that educational services employers and insurance-related employers offer a wide mix of occupations with significant differences in education-and-training requirements while many occupations in food services and drinking places require little formal education and training.

Hospitals require a fair number of workers with specialized training in nursing, therapy, or medical technology. Clerical and administrative positions are often technical or specialized. Janitorial/cleaning jobs and food service jobs are among the few jobs in health care settings that do not require much pre-employment training or education past high school. Perhaps not unlike eating and drinking places, the janitorial/cleaning units and food service units in hospitals see some relationship between limited wage gain potential and employee longevity. This is likely to persist until turnover costs become more apparent because the labor market tightens or because the work evolves to require more technical background or employer-specific knowledge.

### Top 20 Occupations in Wisconsin in Hospitals Ranked by number of jobs projected in 2012

- Registered Nurses
- Nursing Aides, Orderlies, and Attendants
- Licensed Practical and Licensed Vocational Nurses
- Maids and Housekeeping Cleaners
- Radiologic Technologists and Technicians
- Medical and Clinical Laboratory Technologists
- Medical and Health Services Managers
- Physical Therapists
- Janitors and Cleaners, Except Maids and Housekeeping Cleaners
- Interviewers, Except Eligibility and Loan
- Respiratory Therapists
- Medical Secretaries
- Surgical Technologists
- Receptionists and Information Clerks
- Medical Transcriptionists
- Medical Assistants
- Food Servers, Nonrestaurant
- Medical Records and Health Information Technicians
- Secretaries, Except Legal, Medical, and Executive
- Occupational Therapists

Source: WI DWD, Office of Economic Advisors, Sept. 2004

## V. Insurance Carriers and Related Activities

On one hand, workers may find insurance companies and related employers attractive because those establishments tend to be more stable and easier to identify than smaller businesses and often offer better compensation and advancement opportunities.

On the other hand, those same qualities encourage large numbers of applicants, making it a competitive field. A 4-year degree may not help directly in the day-to-day tasks of many of the occupations listed to the right, but workers 4-year degrees are so easy to find that they often become a de facto requirement. Among Dane County residents 25 to 34 years old, the 2000 Census found that 48.7 percent had *at least* a Bachelor's degree; comparable figures for Wisconsin and the U.S. were 27.9 percent 27.5 percent, respectively. A fair amount of the knowledge needed for many of these jobs can be quite employer-specific or job-specific. Workers changing employers or changing departments may be amidst significant career shifts requiring a substantial training investment, even if they remain within the industry.

### Top 20 Occupations in Wisconsin in Insurance Carriers & Related Activities Ranked by number of jobs projected in 2012

- Claims Adjusters, Examiners, and Investigators
- Customer Service Representatives
- Insurance Claims and Policy Processing Clerks
- Office Clerks, General
- Insurance Sales Agents
- Insurance Underwriters
- First-Line Supervisors/Managers of Office & Administrative Support Workers
- Computer Systems Analysts
- Secretaries, Except Legal, Medical, and Executive
- Executive Secretaries and Administrative Assistants
- Bookkeeping, Accounting, and Auditing Clerks
- Computer Programmers
- Accountants and Auditors
- General and Operations Managers
- Computer Support Specialists
- Training and Development Specialists
- Computer and Information Systems Managers
- Title Examiners, Abstractors, and Searchers
- Billing and Posting Clerks and Machine Operators
- Management Analysts

Source: WI DWD, Office of Economic Advisors, Sept. 2004

## Occupation projections

### Occupational Group Summary for South Central Workforce Development Area

Occupational Groups	Estimated Employment		2002 - 2012 Change		Annual average			Average hourly wage	Annual average wage
	2002	2012	Numeric	Percent	New Jobs	Replacements	Total Openings		
Total, All Occupations	412,140	472,090	59,950	14.5%	6,000	9,800	15,800	\$16.76	\$34,861
Management, Business & Financial Operations	34,160	39,970	5,810	17.0%	580	620	1,200	\$30.58	\$63,605
Computer, Math, Architecture & Engineering	16,870	20,290	3,420	20.3%	350	300	650	\$25.87	\$53,816
Life & Social Sciences, Legal, Art & Entertaining	23,000	26,550	3,550	15.4%	370	440	810	\$20.18	\$41,984
Education, Training, & Library	27,470	32,710	5,240	19.1%	520	580	1,100	\$20.25	\$42,116
Healthcare Practitioners, Technicians & Support	30,380	39,520	9,140	30.1%	920	530	1,450	\$20.69	\$43,029
Food Preparation & Serving	33,770	37,780	4,010	11.9%	400	1,340	1,740	\$8.63	\$17,951
Protective, Maintenance & Personal Care Service	34,930	41,290	6,360	18.2%	640	810	1,450	\$11.57	\$24,076
Sales and Related	36,390	41,680	5,290	14.5%	530	1,240	1,770	\$14.48	\$30,119
Office/Administrative Support	72,560	77,260	4,700	6.5%	470	1,640	2,110	\$13.58	\$28,237
Natural Resources, Mining & Construction	18,710	22,660	3,950	21.1%	400	370	770	\$19.66	\$40,883
Installation, Maintenance, Repair & Production	56,540	61,190	4,650	8.2%	460	1,350	1,810	\$14.66	\$30,491
Transportation/Material Moving	27,370	31,190	3,820	14.0%	380	590	970	\$12.42	\$25,836

Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, September 2004

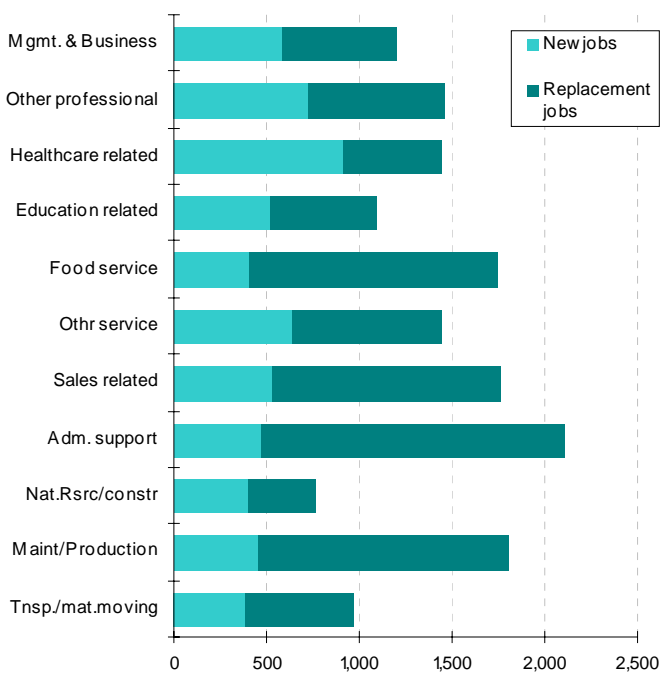
The table above begins with two columns comparing each occupational group's employment in 2002 with its projected employment in 2012. For people entering the workforce or retraining, the occupational outlook may be more useful than the industry outlook. Office/

administrative support occupations and installation, maintenance, repair & production occupations provide more jobs than other occupational groups. They will continue to do so, but by narrowing margins. The third column shows that healthcare practitioners, technicians and support staff will add a larger number of jobs (9,140) than any other occupational group will add between 2002 and 2012.

The fourth column shows that the all-occupations job growth rate will be 14.5 percent. Installation, maintenance, repair & production occupations will grow more slowly (8.2%), as will office & administrative support occupations (6.5%). Production equipment and office equipment raise productivity so quickly that they restrain demand for new workers and job growth rates. Such equipment often requires more technical training to operate at productivity levels high enough to withstand international competition. Many occupations that required extensive on-the-job training a generation ago will evolve to require more pre-employment education and training as well as ongoing skills updates.

The fifth and six columns show new jobs created per year and the annual number of replacements needed due to people leaving an occupation permanently. This information is also shown in the graph to the left. The sum of new jobs per year and replacement workers per year is total openings per year, which appears in the seventh column. Among the 1,340 workers who

#### Annual Openings by Occupation Groups in South Central WDA



Source: WI DWD, Office of Economic Advisors, September 2004



**Twelve Occupations with the Most Annual Openings from 2002-2012 in South Central Workforce Development Area**

Occupational Title	Estimated Employment		2002-2012 Change		Annual average			Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
	2002	2012	Numeric	Percent	New	Replace-	Total			
					Jobs	ments	Openings			
Retail Salespersons	11,690	13,360	1,670	14.3%	170	430	600	1 mo. or less trng. on-the-job	\$10.65	\$7.50 - \$11.62
Cashiers	9,160	10,290	1,130	12.3%	110	450	560	1 mo. or less trng. on-the-job	\$8.05	\$6.90 - \$8.92
Waiters/Waitresses	7,160	8,130	970	13.5%	100	370	470	1 mo. or less trng. on-the-job	\$8.07	\$6.05 - \$9.56
Comb Food Prep/Server/Incl Fast	6,290	7,530	1,240	19.7%	120	270	390	1 mo. or less trng. on-the-job	\$8.29	\$6.92 - \$9.74
Registered Nurses	6,650	8,670	2,020	30.4%	200	140	340	Bachelor's or Assoc. degree**	\$24.34	\$20.80 - \$27.60
Janitors/Cleanrs Ex Maids/Hskpng	7,500	8,660	1,160	15.5%	120	140	260	1 mo. or less trng. on-the-job	\$10.24	\$8.01 - \$11.48
Office Clerks/General	7,520	8,100	580	7.7%	60	170	230	1 mo. or less trng. on-the-job	\$11.72	\$9.20 - \$13.94
Customer Service Reps	6,720	8,050	1,330	19.8%	130	100	230	1-12 mo. training on-the-job	\$13.93	\$10.96 - \$15.96
Labrs/Frght/Stock/Matrl Movrs/Hand	6,230	6,570	340	5.5%	30	200	230	1 mo. or less trng. on-the-job	\$10.90	\$9.00 - \$12.66
Nursing Aides/Orderlies/Attndnts	5,930	7,280	1,350	22.8%	140	80	220	1 mo. or less trng. on-the-job	\$11.25	\$9.54 - \$12.92
Sls Reps/Whls/Mfg/Ex Tech/Sci	4,290	5,230	940	21.9%	90	110	200	1-12 mo. training on-the-job	\$26.17	\$16.71 - \$32.13
Receptionists/Info Clerks	3,430	4,380	950	27.7%	100	80	180	1 mo. or less trng. on-the-job	\$10.79	\$9.22 - \$12.47

Source: WI DWD, Office of Economic Advisors, September 2004

\* may include classroom instruction \*\* depends on employer

permanently leave food preparation & serving occupations each year, most are quitting, not retiring. The number of workers approaching retirement is probably a significant factor in office/administrative support occupations (1,640 replacements per year) and in installation, maintenance, repair and production occupations (1,350 replacements per year). As 4-year colleges pull more students in other directions, these jobs could become harder to fill.

The table above lists 12 occupations with the largest number of projected openings per year. Most retail sales and cashier openings arise because workers leave those occupations permanently (as opposed to new job growth).

Compared to most occupations on the list, registered nurses and sales representatives are more likely to have post-secondary education and training and more likely to earn higher wages. The jobs requiring one month or less of training on the job often offer low wages.

The table below lists the occupations projected to grow the fastest. Starting from a low numerical base means some occupations (like financial advisor) can offer a small number of openings (fewer than 10 per year) and still grow quickly (over 40% in 10 years). Nonetheless, fast growth may suggest an accelerating need to train workers for certain occupations.

**Twelve Occupations with the Greatest Percent Change from 2002-2012 in South Central Workforce Development Area**

Occupational Title	Estimated Employment		2002-2012 Change		Annual average			Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
	2002	2012	Numeric	Percent	New	Replace-	Total			
					Jobs	ments	Openings			
Medical Assts	900	1,420	520	57.8%	50	20	70	1-12 mos. training on-the-job	\$12.39	\$10.83 - \$13.77
Netw Systms/Data Comm Analysts	440	690	250	56.8%	30	10	40	Bachelor's degree	\$28.86	\$21.15 - \$35.07
Medcl Records/Health Info Techs	550	860	310	56.4%	30	10	40	Associate degree	\$13.12	\$9.94 - \$15.45
Compstr Soft Engrns Systms Soft	420	640	220	52.4%	20	0	20	Bachelor's degree	\$27.95	\$21.58 - \$33.18
Home Health Aides	1,920	2,830	910	47.4%	90	30	120	1 mo. or less trng. on-the-job	\$11.71	\$9.30 - \$13.73
Computer Software Engrns Apps	830	1,210	380	45.8%	40	10	50	Bachelor's degree	\$30.95	\$24.83 - \$36.20
Personal Financial Advisors	160	230	70	43.8%	10	0	10	Bachelor's degree	\$29.29	\$21.80 - \$35.48
Dental Assts	760	1,070	310	40.8%	30	20	50	1-12 mos. training on-the-job	\$13.31	\$11.69 - \$15.48
Respiratory Therapists	200	280	80	40.0%	10	10	20	Associate degree	\$20.43	\$17.79 - \$22.78
Dental Hygienists	480	670	190	39.6%	20	0	20	Associate degree	\$24.37	\$23.34 - \$26.73
Business Teachers, Postsecon.	260	360	100	38.5%	10	10	20	Doctoral degree	\$35.79	not available
Heating/AC/Refrig Mechs/Instlrs	500	690	190	38.0%	20	10	30	1 yr. or more trng. on-the-job*	\$19.52	\$15.23 - \$24.27

Source: WI DWD, Office of Economic Advisors, September 2004

\* may include classroom instruction \*\* depends on employer

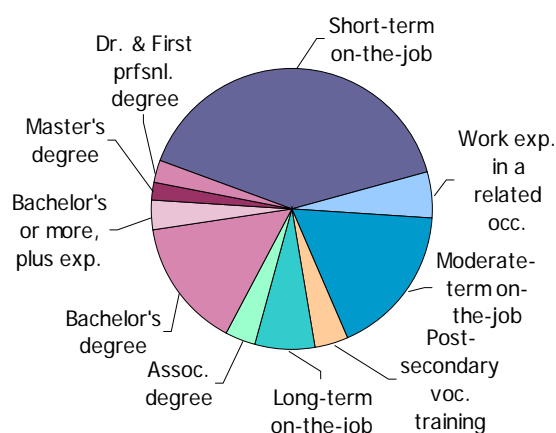
Between 2002 and 2012, South Central Wisconsin expects 15,840 job openings per year and 6,380 of them (or roughly 40 percent) will require short-term on-the-job training. Of those 6,380 openings, just 1,960 will be new jobs and 4,420 (or about 69 percent) will be openings arising because a worker left the occupation permanently. In contrast, South Central Wisconsin will see 200 openings per year requiring a doctoral degree and 90 of them (or 45 percent) will be replacements.

The Bureau of Labor Statistics suggests that workers stay longer in occupations that require more experience, education and training. "Jobs with noticeably high employee tenure include management occupations (6.0 years [average tenure]), architecture and engineering occupations (5.8 years), protective service occupations (5.5 years), education, training, and library occupations (5.1 years), and production occupations (5.0 years)." See <http://www.bls.gov/news.release/tenure.nr0.htm>. Meanwhile, the converse also appears to be true, to some extent. "Jobs with somewhat low employee tenure include food preparation and serving related occupations (1.8 years), personal care and service occupations (2.7 years), sales and related occupations (2.8 years), and healthcare support occupations (2.9 years)." Id. Nonetheless, jobs requiring only short-term on-the-job training cannot be overlooked because they give workers experience needed to climb the career ladder or change directions.

According to the 2000 Census roughly 406,166 people over the age of 24 resided in South Central Wisconsin and about 87,859 of them (or 19.1 percent) listed Bachelor's degrees as their highest level of educational attainment.

Roughly 15 percent of openings projected between 2002 and 2012 will require a Bachelor's degree and another 3.3 percent will require a Bachelor's degree or more plus work experience. With its concentration of healthcare, insurance and educational services industries, Dane County is likely to account for a very significant share of these openings. As of the 2000 Census, nearly 49 percent of Dane's 25- to 34-year-olds had Bachelor's degrees or higher. The more rural parts of South Central Wisconsin (including much of Marquette County) may find it challenging to create jobs and environments that attract college graduates and may find it more challenging to attract qualified workers to fill health care openings that will be plentiful (in varying degrees) throughout the region.

Distribution of Total Openings in South Central WDA by Training Path



Typical Education or Training Path\* for Jobs in South Central Workforce Development Area

Education or Training	Number of Occupations	Estimated Employment		2002-2012 Change		Annual average			Distribution of Total Openings
		2002	2012	Numeric	Percent	New Jobs	Replacements	Total Openings	
<b>Total</b>	745	412,150	472,100	59,950	14.5%	6,000	9,840	15,840	100.0%
Associate degree	36	12,830	15,650	2,820	22.0%	280	230	510	3.2%
Bachelor's degree	107	61,150	73,060	11,910	19.5%	1,190	1,190	2,380	15.0%
Master's degree	37	9,760	11,300	1,540	15.8%	150	210	360	2.3%
First professional degree	16	4,310	5,460	1,150	26.7%	120	70	190	1.2%
Doctoral degree	40	3,720	4,780	1,060	28.5%	110	90	200	1.3%
Long-term on-the-job training	81	30,760	35,130	4,370	14.2%	440	670	1,110	7.0%
Moderate-term on-the-job training	170	86,850	95,890	9,040	10.4%	900	1,820	2,720	17.2%
Short-term on-the-job training	136	148,190	167,810	19,620	13.2%	1,960	4,420	6,380	40.3%
Bachelor's degree or more, plus work exp.	30	15,250	17,730	2,480	16.3%	250	280	530	3.3%
Work exp. in a related occupation	42	23,400	26,800	3,400	14.5%	340	500	840	5.3%
Postsecondary vocational training	50	15,930	18,490	2,560	16.1%	260	360	620	3.9%

\* This provides a general indication of the education or training typically needed in occupations. There may be other pathways.

Source: WI DWD, Office of Economic Advisors, September 2004

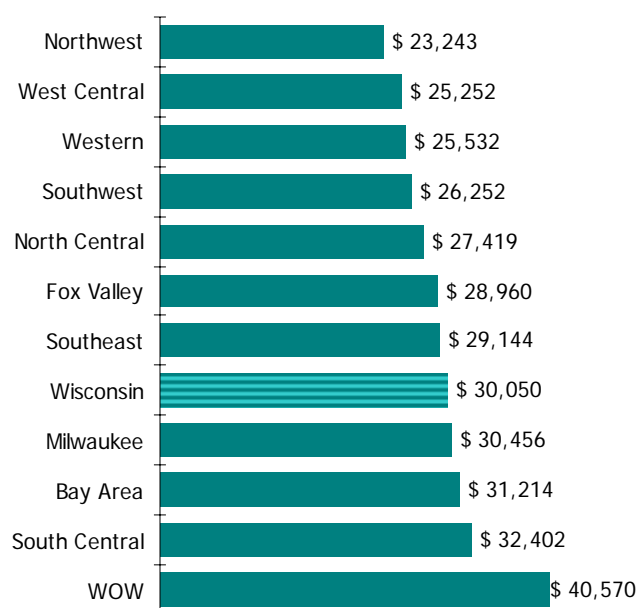
## Total personal income

In 2002 South Central Wisconsin's per capita personal income was \$32,402. The highly urban Milwaukee had a lower PCPI (\$30,456), but the suburban Waukesha-Ozaukee-Washington area's PCPI (\$40,570) was head and shoulders above the rest. (See bar graph to right.) Between 1997 and 2002, South Central Wisconsin's *total* personal income growth (32.1%) was higher than the state's (26.6%) and the nation's (28.8%). Meanwhile, the region's population growth (5.3%) was closer to the nation's (5.6%) than the state's (3.3%). On balance, *per capita* personal income grew 25.5 percent regionally, 22.6 percent statewide and 22.0 percent nationally. (See table below.)

Demographic changes can affect PCPI just as much as total income changes. For example, Dodge and Marquette counties will have fewer school-aged children in coming years, which means fewer people contributing to population figures but not to income figures.

Because they tend to be closer to typical working ages, Dane County residents derive nearly 72 percent of their income from net earnings with Columbia and Jefferson counties close behind (70 percent and 69 percent respectively). Net earnings include wages, salaries, proprietor's income, paycheck withholdings and an adjustment for residents working outside the area.

Per Capita Personal Income by WDA



Source: US Dept. of Commerce, Bureau of Economic Analysis

### Total Personal Income in South Central Workforce Development Area

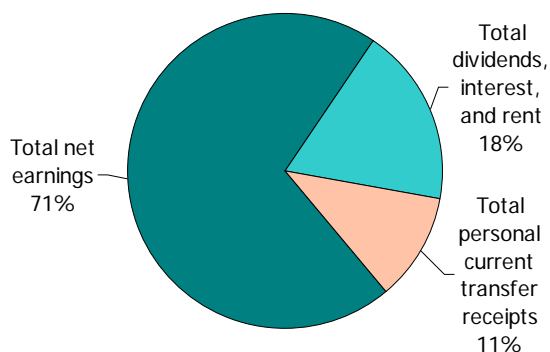
% Change from 1997 to 2002

	1997	2002	South Central	Wisconsin	United States
<b>Population</b>	693,895	730,714	5.3%	3.3%	5.6%
<b>Total Personal Income</b> (in thousands)	\$17,917,463	\$23,676,496	32.1%	26.6%	28.8%
<b>Net Earnings</b>	\$12,273,692	\$16,681,193	35.9%	27.6%	30.4%
<b>Dividends, Interest, and Rental Income</b>	\$3,739,900	\$4,362,282	16.6%	14.9%	18.4%
<b>Transfer Receipts</b>	\$1,903,871	\$2,633,021	38.3%	39.4%	35.8%
Income Maintenance	\$127,586	\$144,184	13.0%	29.1%	21.3%
Unemployment insurance benefit payments	\$49,732	\$125,741	152.8%	147.2%	166.1%
Retirement and other	\$1,726,553	\$2,363,096	36.9%	36.9%	34.4%
<b>Per Capita Personal Income</b>	\$25,822	\$32,402	25.5%	22.6%	22.0%
Per Capita Net Earnings	\$17,688	\$22,829	29.1%	23.5%	23.4%
Per Capita Dividends, Interest, and Rental Income	\$5,390	\$5,970	10.8%	11.3%	12.1%
Per Capita Transfer Receipts	\$2,744	\$3,603	31.3%	35.0%	28.6%
<b>Total Employment</b> (see glossary)	482,415	529,898	9.8%	5.0%	7.3%
Wage and salary jobs	406,969	441,809	8.6%	4.3%	5.9%
Number of non-farm proprietors	64,594	77,455	19.9%	11.2%	16.0%
<b>Average earnings per job</b>	\$28,986	\$35,878	23.8%	21.0%	21.2%
Average wage & salary disbursements	\$25,995	\$32,150	23.7%	19.0%	21.1%
Average nonfarm proprietors income	\$16,804	\$22,193	32.1%	37.0%	24.7%

Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis, May 2004

Residents between the ages of 25 and 59 generate most of the earned income. Their ranks will grow unevenly in South Central Wisconsin. Between 2005 and 2030, the 25- to 59-year old group will grow quickly in Sauk County (9.2%) while it remains fairly stagnant in

**Major Components of Total Personal Income in 2002 in South Central Workforce Development Area**



Source: Special tabulation by WIOEA & US BEA files

Dodge County (1.6%) and shrinks (-5.1%) in Marquette County. Absent some countervailing trend, these demographic shifts are likely to affect various counties' net earnings growth in years to come. Already, Marquette County's older population brings its net earnings growth down to 27.2 percent between 1997 and 2002 while other South Central counties saw net earnings grow by 35 percent to 38 percent.

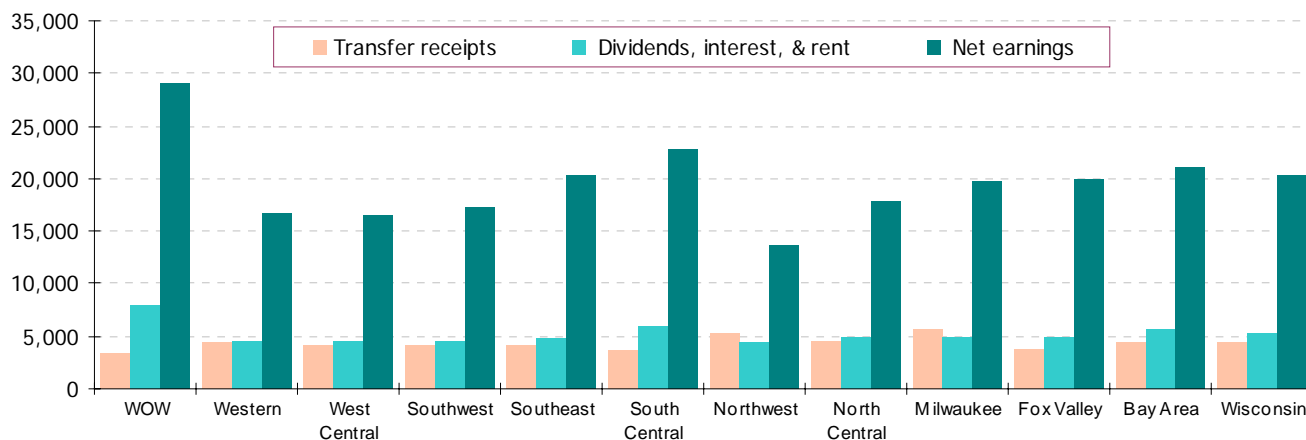
Transfer receipts include payments and reimbursements from programs such as Social Security,

Medicare and unemployment insurance. These accounted for 22.8 percent of Marquette County's total income while they were 13-14 percent of total income in Columbia, Dodge, Jefferson and Sauk counties. From 1997 to 2002 unemployment insurance payouts to South Central Wisconsin residents increased 152.8 percent. The sharpest increases were in Dodge (181.8%) and Dane (172.0%) counties.

Dividends, interest and rent accounted for 19 - 22 percent of total income in each South Central county. If Marquette County's elderly population had more financial resources or if it weren't for Dane County's concentration of jobs with pensions or high wages, one would expect dividends, interest and rent to account for a greater share of income in Marquette (20.1%) than in Dane (21.6%). If the federal government tried to stimulate investment by reducing guaranteed transfer payments, South Central Wisconsin residents who rely heavily on investment income would probably benefit more than those who rely on transfer payments.

The graph below shows each Wisconsin region's per capita transfer receipts, per capita dividends, interest & rent, and per capita net earnings. The concentration of technical and professional jobs in an area near the Waukesha-Ozaukee-Washington (WOW) region raises income levels and allow WOW residents to put more money in investments that yield dividends, interest and rent. Housing costs in large parts of that region effectively bar people who receive means-tested transfer payments, so per capita transfer payments are low. Just as suburban WOW residents often commute to Milwaukee for salaries and career opportunities, many communities inside and outside Dane County send workers to Madison.

**Per Capita Income by Major Components of Total Personal Income: 2002**

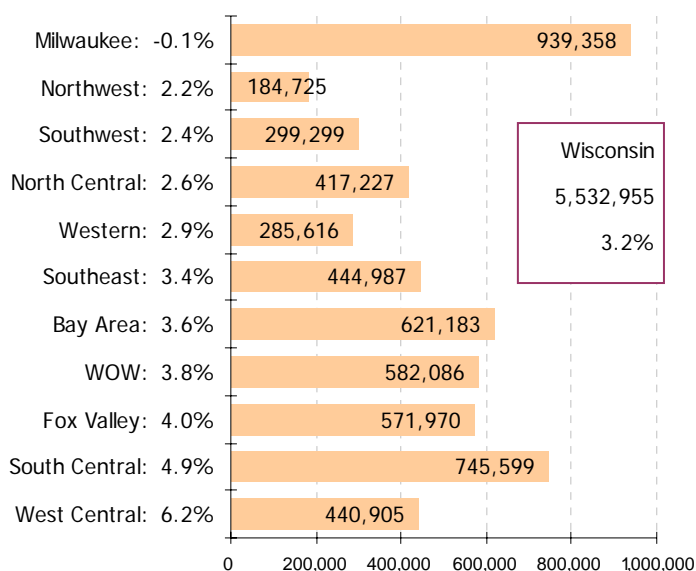


Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis

## Connecting the Elements

The data sets in this profile become more interesting and useful when we better understand their interrelationships. Industries provide jobs, jobs generate earnings, earnings drive consumer demand that fuels industries. Population trends play significant roles in each part of the cycle.

### 2004 WDA Population and Percent Change from 2000



Source: WI Dept. of Administration, Demographic Services Center

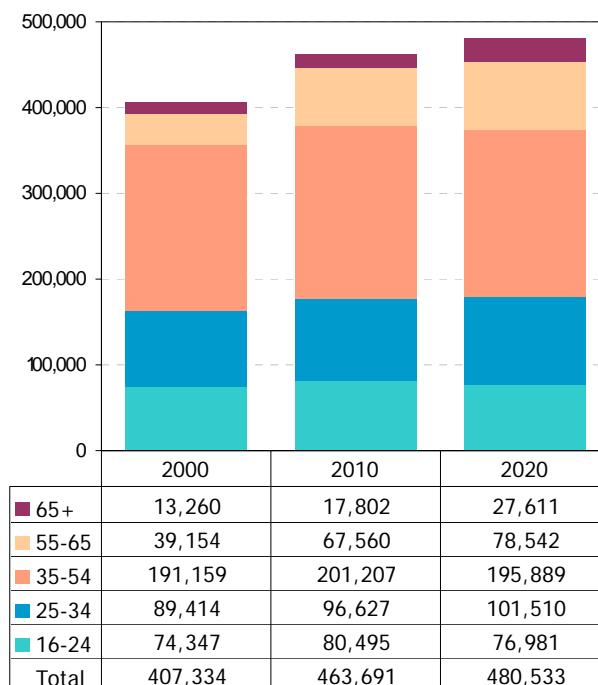
Between the April 2000 census and the January 2004 population estimate South Central Wisconsin added 35,161 people or 4.9 percent. Marquette was the only county in the region to experience more deaths than births between 2000 and 2004. In 2000, 60 percent of the region's population resided in Dane County, so it is not surprising that 62 percent of the region's births also happened there between 2000 and 2004. The more striking fact was that, fewer than 50 percent of the region's deaths occurred in Dane County. The result: nearly 80 percent of the region's net natural increase (total births minus total deaths) occurred in Dane County. Available data does not confirm the ages of people moving in and out, but current demographics and projections suggest that people may be more likely to spend their younger years in Dane County and their older years in parts of South Central Wisconsin with lower housing costs.

Birth rates and labor force participation rates are often higher among Hispanic and nonwhite populations

than among non-Hispanic white populations, so diversity can hasten the pace of labor force growth. Nationally and locally, areas that have more success attracting diversity tend to have higher natural growth rates, younger workforces and higher labor force participation rates. Elements of this dynamic can be seen in Dane County and, to a lesser extent, Jefferson and Sauk counties. Age demographics and projections suggest Marquette County's population growth relies on retirees moving in. These trends affect the future of the labor force.

The table and chart below show that South Central Wisconsin's labor force grew 21 percent between 1990 and 2000, is projected to grow nearly 14 percent between 2000 and 2010 and is projected to grow 3.6 percent between 2010 and 2020. The slowing would be more extreme if not for increasing labor force participation among residents aged 55 and over. The projections suggest that between 2000 and 2010 South Central Wisconsin's labor force will grow by roughly 56,356 people (from 407,334 to 463,691) and approximately 32,948 of those people (representing nearly 63 percent of the growth) will be workers 55 or more years old. Between 2010 and 2020, the number of workers aged 16

### South Central WDA Labor Force Projections by Age



Decade change	22.0%	13.8%	3.6%
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Source: DWD, Office of Economic Advisors, August 2004



to 24 years is projected to shrink by roughly 3,514 or 4.4 percent and the number of workers aged 35 to 54 years is projected to shrink approximately 5,318 or 2.6 percent. In the 2010-2020 time period, workers 55 or more years old will add 20,791 or 24 percent to their ranks while the total labor force grows by 16,843 workers or 3.6 percent. Were it not for strong growth of the 55-and-over workers, the labor force would shrink between 2000 and 2010. These demographic dynamics suggest several potential labor market trends for South Central Wisconsin:

**Holding on to older workers.** Employers may struggle to find and train replacements fast enough. Older workers often have unique knowledge of their occupations, their employers and their individual jobs. Efforts to coordinate training programs between private industry groups and local educational institutions may strive to include older workers. Employers who cannot find and train replacements quickly enough could change schedules or other workplace policies to improve retention of older workers. Pension and health insurance details may require adjustment or negotiation.

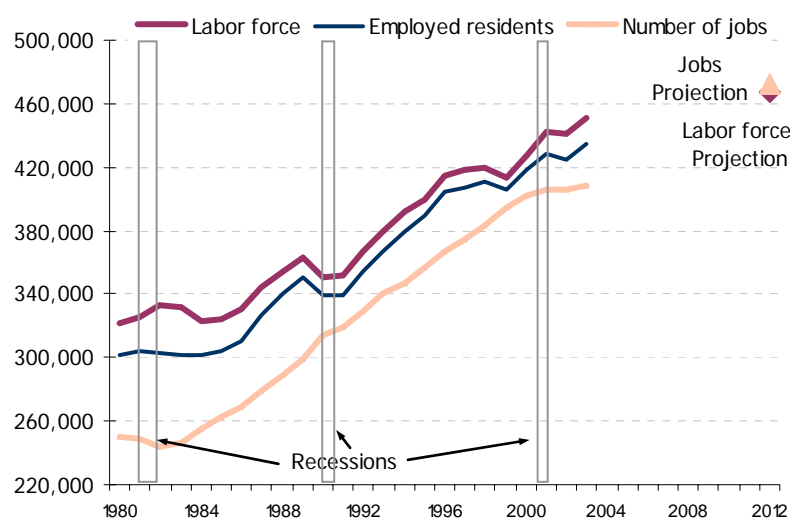
**Advancement opportunities for younger workers.** Unless they pursue careers outside the region, some of South Central Wisconsin's most qualified workers may accelerate their careers as employers scramble to fill vacancies left by retirees. Professional or technical occupations would see more of this than entry-level occupations in leisure & hospitality or retail.

**Changing business models and/or restrained job growth.** Employers who do not train replacements soon enough may rely more heavily on outsourcing. Some employers could maintain output levels by upgrading equipment rather than replacing workers. Smaller organizations may specialize in narrower market niches. Unless the more rural or manufacturing-dependent parts of South Central Wisconsin find ways to replace production jobs (which constitute a shrinking share of overall employment) with professional and technical jobs (or some other high-wage alternative), those areas may find it increasingly difficult to fund education and social services at levels that attract top

employers and workers.

**Tighter labor markets pinching employers** The graph above shows a shrinking gap between the number of jobs in South Central Wisconsin and the number of employed residents. This gap is projected to shrink further. Tightening labor markets can be positive for workers in the short to medium term, but employers facing consistent challenges in filling positions are more likely to be cautious or even reluctant when considering expansion of local operations. Alternatively, they may be more likely to consider expansion methods that require less growth of local employment. Neither of these trends would benefit workers in the long term.

Historic & Projected Labor Force & Jobs in South Central WDA



Source: WI DWD, Bureau of Workforce Information & Office of Economic Advisors

**Struggles to fund education and training.** Page 4 notes that the 60-and-over group will grow the fastest, followed by the 5- to 24-year-olds. The smallest and slowest growth will be in the 25- to 59-year-olds, who will shoulder a growing burden. The 60-and-over group has historically shown high voter turnout. This group benefits more directly from some healthcare programs than most education spending. It is not clear how much this group will support measures that limit, shrink or reallocate tax funds, especially if their healthcare programs face threats.

The workforce development profiles are produced by the Office of Economic Advisors in the Wisconsin Department of Workforce Development. The author of this profile and regional contact for additional labor market information is:

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